



AIS SPORTS SUPPLEMENT PROGRAM FACT SHEET

Colostrum

Supplement Overview

- Colostrum is a protein-rich substance secreted in breast milk in the first few days after a mother has given birth. Colostrum supplements are typically produced from bovine (cow) sources.
- Colostrum is rich in immunoglobulins and insulin-like growth factors (IGFs). The gut of a baby has "leaky" junctions that allow it to absorb proteins including immunoglobulins, thus developing the immunocompetence needed to survive outside the uterus. By contrast, most experts believe that the adult gut does not absorb substantial amounts of intact proteins
- Colostrum supplementation is claimed to improve exercise performance and recovery, and possibly to have beneficial effects on body composition.
- To date, a small number of studies have been conducted and published in peer-reviewed literature. Although these studies are well-controlled and have involved long-term supplementation with several commercially available colostrum supplements, they have been unable to show consistent or universal improvement of athletic performance. There is little evidence of an enhanced outcome of training on changes in body mass or body composition. The possibility of a reduced risk of illness with colostrum supplementation requires careful long-term research.
- A mechanism by which colostrum supplementation benefits athletes remains speculative. While a few studies indicate that colostrum supplementation increases concentrations of serum IGF-1 and salivary immunoglobulins, other studies have failed to demonstrate these findings.
- In summary, further research is required to demonstrate that colostrum supplementation benefits performance and to identify the athlete group most likely to benefit from supplementation. The recommended protocol for colostrum use involves an intake of 20-60 g of colostrum powder or liquid each day and the literature indicates that at least 4 weeks of supplementation may be required to induce a benefit. With commercial supplements costing \$AUS25-70 per week to achieve these doses, colostrum supplementation involves a considerable expense.

Concerns Associated with Supplement Use

- Colostrum supplementation is expensive.

AIS Supplement Protocol (Group B)

- Available for use in a scientifically controlled research project.

Last updated 8/3/06

